

**REMARKS**

To summarize, Claims 14, 16, 20, 22, 25, 27, 40, 46 and 49 have been amended and Claims 15, 28, 41-45 and 48 have been cancelled. Thus, Claims 14, 16-40, 46, 47 and 49 remain pending. Claim 14 has been amended to include the features of cancelled Claim 15 dependent therefrom. Claims 16, 20, 22 and 25 have been amended to depend from Claim 14, rather than cancelled Claim 15. Claim 27 has been amended to include the feature of cancelled Claim 28.

Applicants appreciate the indication of allowable subject matter in Claim 45. Claim 40 has been amended to include the features of cancelled dependent Claims 41-45, and thus is believed allowable. Claims 46 and 49 have been amended to depend from Claim 40, rather than cancelled Claim 41.

The above amendment merely amends Claim 14 to include the features of Claim 15 dependent therefrom, amends Claim 27 to include the features of Claim 28 dependent therefrom, and amends Claim 40 to include the features of Claims 41-45 dependent therefrom. Thus, no new issues are presented that require further consideration. Therefore, entry of the amendment is respectfully requested.

Applicants infer by no statement to the contrary, that the substitute formal drawings filed September 9, 2009 have been approved. Please advise if there are any issues with regard to the substitute drawings.

We note that the text of the various rejections set forth in the Office Action is essentially identical to the text of the rejections set forth in the May 28, 2009 Office Action, except in some instances Wang, U.S. Patent No. 6 646 541 is listed in the first paragraph in place of the King patent.

Applicants appreciate the Examiner's detailed Response to Arguments section set forth at pages 2-6 of the Office Action. These specific arguments are addressed in bold text hereinbelow.

In the Office Action, Claims 14, 15, 23, 24, 31-35 and 38 stand rejected under 35 USC §103 as being unpatentable over

Sakurai, U.S. Patent Pub. 2002/0156466 in view of Dustin, U.S. Patent No. 6 853 308 and further in view of Wang, U.S. Patent No. 6 646 541. As indicated above, Claim 14 has been amended to incorporate the features of cancelled Claim 15.

Sakurai discloses a surgical system having wireless remote controllers 9a, 9b mounted to respective cables of each controllable surgical device 7, 8 for selecting a surgical device for operation by a footswitch unit 4. The remote controllers 9a, 9b shown in Figure 1 transmit signals having a unique controller specific identification signal to a footswitch controller 5. The footswitch controller 5 receives footswitch control signals from footswitch unit 4 and controls the respective surgical devices 7, 8 corresponding to the operated remote controller 9a, 9b. Thus, the remote controllers 9a, 9b of Sakurai that are mounted on the surgical device cables only operate to enable control of the respective device and disable the other device via footswitch unit 4.

Paragraph [0036] of Sakurai discloses pressing the pedal A of the footswitch unit 4 to provide ultrasonic vibrations from the scissors hand piece 7. Further, paragraphs [0037] and [0039] state that when pedal B of the footswitch unit 4 is pressed, an operation signal is transmitted to the electric cautery apparatus 3 to output energy to the electrode 8e.

Paragraph [0048] of Sakurai discloses that setting data indicating the correspondence between remote controllers and treating tools, and setting data defining operations to be performed when the pedals A and B of the footswitch unit 4 are pressed, are input by operating the setting key 28a and are stored in memory 33 of the footswitch control circuit 27. Thus, an operator must manually set up the various operating characteristics for the treating tools 7, 8 to be operated.

In Figure 9 of Sakurai, the remote controllers 9a, 9b send selection signals to a receiver 24 in the footswitch unit 51. The footswitch unit 51 then provides control signals over wires to an ultrasonic generator 7 and an electrocautery apparatus 8, respectively.

In conclusion, remote controllers 9a, 9b mounted on the cables 11, 15 of the surgical devices 7, 8 of Sakurai are utilized to select the surgical device 7, 8 to be controlled, while the separate footswitch unit 4 merely selectively actuates or operates the surgical devices and does not allow selection of the medical device to be controlled from a plurality of medical devices.

In the Response to Arguments section at page 2 of the Office Action, the Examiner states that an operator pressing pedal A or B, in fact selectively operates the surgical device, and thus the footswitch unit of Sakurai does allow the selection of a surgical device. Applicants agree that selective operation of a surgical device is disclosed, but Applicants' Claim 14 recites a selection control to allow the operator "to select a medical device to be controlled from among the plurality of medical devices" and "a separate device control for manually operating the selected device". Thus, Applicants' Claim 14 recites two separate controls, one to select a medical device and one to operate the selected device. The pedals A, B of Sakurai do not provide the two separate functions. Instead, the remote controllers 9a, 9b of Sakurai each select a respective medical device for operation.

At page 2 of the Office Action, the Examiner states that remote controllers 9a, 9b function as safety switches to prevent accidental operation of the surgical devices, but once the surgical devices are enabled, selective operation of the surgical devices is based on the foot pedals. This statement is not understood, as the remote controllers 9a, 9b perform the medical device selection function, and a corresponding lamp 21 on the given controller 9a, 9b illuminates to indicate that the corresponding treating tool 7, 8 has been selected. More specifically, remote controller 9a is actuated to enable operation of handpiece 7. Selection by remote controller 9a also disables electric cautery 8. Likewise, when remote controller 9b is actuated, the lamp 21 thereon indicates that the selection of electric cautery has been made and handpiece

7 is disabled. Thus the treating tools 7, 8 are not "both enabled" by either of the remote controllers 9a, 9b.

At page 3, lines 1-6 of the Response to Arguments, the Examiner states that the switches 9a, 9b "located on the cables are not selection devices, but rather safety switches to enable the foot pedal". Applicants traverse this statement. Paragraph [0054] of Sakurai states that when one remote controller 9a, 9b is in a selected state, if the other remote controller is further selected, the corresponding LED is lit and the human operator can easily determine "which treating tool is enabled in response to the selection of the remote controller". Thus, at this stage, the previous treating tool is disabled and cannot be controlled by the footswitch. As discussed above, the footswitch pedals A, B of Sakurai merely control the previously enabled treating tool. Further, paragraph [0075] of Sakurai states that "the human operator can easily switch the treating tool as required by operating the wireless remote controller 9a or 9b, and the human operator can easily determine which treating tool is in an enabled state". When one treating tool is enabled, the other treating tool is disabled. Thus, Sakurai clearly discloses that controllers 9a, 9b each select a respective treating tool corresponding to a cable 11, 15 to which the respective controller 9a, 9b is attached, and thus does not teach that controllers 9a, 9b are "safety switches".

For the above reasons, the remote controllers 9a, 9b are clearly selection devices, as each controller enables a specific treating tool 7, 8 to be controlled by the footswitch 4, and disables the operation of the other treating tool.

In view of the above misinterpretation of Sakurai, Applicants request reconsideration and withdrawal of the rejection of Claims 14, 23, 24, 31-35 and 38.

Dustin discloses a multi-sided remote control device for controlling a plurality of separate devices, such as a TV, VCR, DVD player, set-top box and a stereo receiver. The remote control device of Dustin is a hand-held device with

button groups on the first and second sides thereof. The same buttons may be utilized to control different devices depending on the device selected in an operating menu. A selection switch within the remote control device selects a device to be controlled. Then control signals are transmitted to the selected device.

The Office Action relies on Dustin for modifying the system disclosed by Sakurai to include a separate selection control on the footswitch unit 4 to allow the operator to select a particular medical device to be controlled from among a plurality of medical devices.

Dustin is specifically directed to a hand-held device. With button groups on both sides of the remote control device, the Dustin device is incapable of functioning as a foot switch. Further, Dustin is not related to controlling the operation of medical devices. Thus there is no motivation to modify the footswitch unit of Sakurai in view of the hand-held remote control device of Sakurai.

Moreover, Sakurai specifically discloses providing separate remote controllers 9a, 9b mounted on a cable for each of the surgical devices to be controlled. The selection devices are located at or near the respective surgical devices. Thus, Sakurai discloses the use of individual remote control selection devices 9a, 9b for individual treating devices 7, 8 in a surgical system, and thus chooses not to combine such remote controllers used for selection purposes with the separate footswitch 4 disclosed therein for controlling the selected medical devices. Therefore, Sakurai teaches away from the claimed invention.

Moreover, Dustin does not disclose transmitting a "selection signal" in combination with a device control signal as recited in Claim 14. Instead, a device selection decision is made in the remote control device, and then control signals are transmitted to and read by the selected device. Amended Claim 14 also recites a receiver unit including a "receiver for receiving the selection signal and the device control



signal" and a "data communication device" for transmitting a "selected device operating signal" that is based on the control signal and the selection signal. The selection control of Dustin does not transmit a selection signal, much less to a receiver unit having a data communication device that communicates with more than one medical device. Therefore, even if there was motivation to combine Dustin with Sakurai, which Applicant disagrees with, the claimed invention would not result as neither Sakurai nor Dustin disclose a control console with a plurality of controls that transmits both "a selection signal" and "a device control signal" over a wireless medium.

**At page 3 of the Office Action, in the Response to Arguments, the Examiner states that in view of the prior arts and Dustin, it would have been obvious to "include a selection control on the footswitch unit in order to select a medical device to be controlled in a system with a high number of medical devices". As discussed above, Sakurai discloses individual selection controllers 9a, 9b provided on cables for each corresponding medical device to be controlled. Each controller 9a, 9b disables the treating tool corresponding to the other controller 9a, 9b. Thus, there is no motivation to provide selection devices on the footswitch, as Sakurai believes the convenient approach is to provide the remote controller 9a, 9b on the cable of the specific corresponding treating tool 7, 8 to be controlled. Further, as discussed above, neither Sakurai nor Dustin disclose a console that transmits both a device selection signal and a control signal.**

For the above reasons, there is no motivation to combine Dustin with Sakurai to obtain the claimed invention.

The Office Action further states that providing a separate selection control on the control console of Sakurai would reduce costs by using the same device control buttons if there are a large number of medical devices in the system. This proposed reduction of buttons is not believed to provide motivation for the use of a separate selection control on the

footswitch of Sakurai. Sakurai already purposely has decided to provide an individual, separate remote control button near each treating tool 7, 8 for providing a selection signal to a controller separate from the footswitch 4, or as shown in Figure 9 to a controller within the footswitch 51. Thus, in either arrangement, Sakurai provides a clear delineation between the individual device selection controllers 9a, 9b provided with or near the individual treating tools 7, 8 and the footswitch 4, 51 for controlling the output of the selected surgical device.

Wang discloses a general purpose operating room control system for controlling a plurality of medical devices. The system relies on a controller with a voice control interface for determining device selection and device control commands and providing the control commands to control a selected device, such as an electrocautery device or a robotic arm. Wang discloses that the controller controls the devices by wired electrical communication or by wireless communication.

Wang also discloses a system additionally employing a foot pedal, a hand held device or other device for controlling a medical device. More specifically, as set forth at column 10, lines 12-21 of Wang, the voice control interface selects a certain device to be controlled, and "once selected the device may be controlled via one of the well-known controllers", which includes the foot controller. Thus, the foot controller disclosed in Wang merely operates to control a previously selected device and thus generally corresponds to the footswitch 4, 51 disclosed in Sakurai.

There is no motivation to modify the footswitch 4, 51 of Sakurai to provide both device selection and device control signals in view of Dustin, much less then further modifying the footswitch unit 4, 51 in view of Wang to provide wireless device selection signals from the footswitch in place of the separate device selection remote controllers 9a, 9b of Sakurai or the voice interface of Wang.

Claim 14 recites a foot-operated control console having a plurality of controls for operation by a foot of an operator including "a selection control to allow the operator to select a medical device" and "a separate device control for manually operating the selected device". As discussed above, in Sakurai, device selection or enablement is provided by remote controllers 9a, 9b that are separate from the footswitch 4, 51. Thus, neither the remote controllers 9a, 9b nor the footswitch of Sakurai have both a selection control and a separate device control.

As discussed above, Dustin is directed to a remote control device for an entertainment system, such as a television, DVD player, etc. There is no disclosure of providing the remote control device of Dustin in a foot switch type of arrangement, as Dustin is directed to providing a hand-held remote control device with buttons on both the first and second sides thereof. Finally, as also discussed above, Wang is directed to providing a foot switch only for the purpose of controlling a device selected by a voice control interface.

Claim 14 also recites "a wireless transmitter to transmit over a wireless medium a selection signal responsive to operation of the selection control and a device control signal responsive to operation of the device control". As discussed above, Sakurai does not utilize wireless transmission from the footswitch unit 4, 51. Dustin discloses providing device control signals for an entertainment system with a hand-held wireless remote control device having button groups on both sides thereof, but not transmitting device selection signals. There is no disclosure of using the Dustin device as a foot switch, much less with a medical device. Moreover, the remote control device of Dustin, under no circumstances could function as a foot switch, much less the equivalent thereof, since Dustin is clearly limited to a hand control device as buttons are provided on both sides thereof. Finally, as discussed above, Wang provides a foot switch with a wireless



transmitter only to provide device control signals, and not device selection signals, as discussed above.

For the above reasons, there is no motivation to combine Dustin and Wang with Sakurai to obtain the claimed invention.

Dependent Claims 23 and 24 are believed allowable for the reasons set forth above with respect to Claim 14.

Independent Claim 31 is also believed allowable over Sakurai in view of Dustin and Wang, as there is no motivation to combine the three references for the reasons discussed above with respect to Claim 14.

Further, Claim 31 recites a system for controlling a plurality of medical devices including "a wireless foot-operated control console including at least one selection control switch for manually selecting the medical device to be controlled and at least one control pedal for manually controlling the selected medical device, the foot-operated control console including a wireless transmitter for wirelessly transmitting a medical device selection signal" and for "wirelessly transmitting medical device control signals provided by the control pedal".

In contrast, Sakurai only discloses foot pedals A, B for providing variable control signals that operate surgical devices. As discussed above, Wang only discloses a footswitch 4 providing control signals to control voice selected devices. Finally, Dustin discloses transmitting only control signals, as any device selections are made within the remote control device itself as no receiver unit is disclosed for controlling multiple devices.

For the above reasons independent Claim 31, along with Claims 32-35 and 38 dependent therefrom, are believed allowable.

The rejection of Claims 16 and 22 under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Stephens, U.S. Patent No. 5 734 254 has been considered. Claims 16 and 22 are believed allowable for the reasons set forth above with respect to Claim 14.

Claims 17-19 stand rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin, Wang and Stephens, and further in view of Snyder, U.S. Patent No. 6 043 626. Claims 17-19 are believed allowable for the reasons set forth above with respect to Claim 14.

Claim 20 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Right, U.S. Patent No. 4 513 284 and Yaroch, U.S. Patent No. 5 790 065.

Claim 20 recites a plurality of foot-operated control consoles and that "each said control console includes a unique console identifier". Sakurai discloses a single footswitch 4, 51 with a wired connection to a controller. Thus, a unique console identifier would have no function or purpose in the wired Sakurai arrangement. Dustin transmits only device control signals that include no such identifier. A second control device of Dustin, in operation, would transmit the same signals and thus be indistinguishable from a first control device.

Right discloses a console priority control arrangement wherein a plurality of wired control consoles each have a relative priority, and priority wiring is provided by a pair of wires from one console to the next. Thus, the console with the highest priority is enabled and all other consoles are disabled.

At page 14, last two lines through page 15, lines 1-3, the Office Action states that it would have been obvious to one of ordinary skill to include the foot operated control console as one of "a plurality of foot operated control consoles as taught by Right to let multiple operators to control the medical equipment, thereby improving efficiency". In the priority scheme of Right, a single priority console controls the devices, for example, to provide a fire alarm. There is no disclosure of a "unique console identifier" intended to prevent a wrong controller from operating a medical device, much less console identifiers enabling

different consoles to be identified by a data communication device. Since the priority scheme of Right does not address the purpose of the claimed invention, there is no motivation to provide the multiple controllers of Right with the arrangement of Sakurai, Dustin and Wang.

Further, page 5, line 2 of the Office Action states that the combined elements "yield predictable results". Since Right does not disclose synchronization, a priority console would operate/control a device without identifying other unique consoles.

Thus, even if one of ordinary skill would substitute the plural consoles with a priority console of Right for the arrangement of Sakurai, Dustin and Wang, which Applicants' disagree with, the claimed "unique console identifier" is not believed present in the applied prior art.

Yaroach discloses a remote control for vehicular audio systems. This arrangement is not believed relevant to Applicants' claimed surgical control system. Yaroach discloses the concept of uniquely coded RF control signals for controlling audio system parameters of a car stereo, along with a separate car lock controller. Each specific controller only controls one specific device, and thus no device selection is necessary or disclosed.

The system of Yaroach includes an audio remote transmitter 27 for modifying audio system parameters and an infrared remote control transmitter 17, which is a separate controller as shown in Figure 1.

Column 3, lines 38-50 of Yaroach discloses providing two separate remote transmitters that are identifiable at the receiver location. The remote transmitters, however, have two entirely different purposes. More importantly, one remote controller simply controls a stereo system and another controller controls a vehicle lock system. Thus, it is unclear how the remote control system of Yaroach is relevant to Applicants' claimed invention of providing controllers for

selecting and controlling one of a plurality of medical devices during a medical procedure.

Page 5, first full paragraph of the Office Action states that the "motivation to utilize the teachings of Yaroch is to identify the control console". While we agree that the control signals from the vehicle lock controller and the audio system controller of Yaroch are "identified", the controllers themselves are not "identified" as a second vehicle lock controller would send signals identical to the first vehicle lock controller. Further, there is no selection of devices to be controlled in Yaroch, and thus the controllers 33, 27 do not perform Applicants' claimed selection function. Therefore, any console based thereon would not perform the device selection function or provide the "unique console identifier" recited in Claim 20.

For the above reasons, Claim 20 is believed allowable.

Claim 21 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin, Wang, Stephens and Snyder as applied to Claims 14-18 and further in view of Philipsson, U.S. Patent Pub. 2001/0007815. Claim 21 is believed allowable for the reasons set forth above with respect to Claims 14-18.

Claim 25 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Yaroch.

Claim 25 recites that "the wireless transmitter is configured to transmit an apparatus identifier in association with the selection signal, the apparatus identifier for associating the foot-operated control console at the receiver unit".

As discussed above, Yaroch discloses a vehicle transmitter arrangement wherein a first transmitter provides audio control signals to the vehicle audio system and a second transmitter provides for control signals for door locks and the like. As discussed above, there is no motivation to provide the plural transmitters of the vehicle of Yaroch with

an apparatus identifier for each wireless transmitter, much less for a system wherein foot switches select and control a plurality of medical devices.

Yaroach, which provides two RF transmitters for controlling two different device systems in a vehicle, does not teach the arrangement recited in Claim 25. As discussed above, this is deduced by a duplicate remote entry or audio transmitter providing exactly the same signals to a receiver 30, as no "apparatus identifier" to differentiate the remote entry transmitter 33 from a second remote entry transmitter is discussed or suggested.

For the above reasons, Claim 25 is believed allowable.

In the Office Action, Claim 26 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Linhares, U.S. Patent No. 5 336 218. Claim 26 is believed allowable for the reasons set forth above with respect to Claim 14.

Claim 36 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Wang, U.S. Patent 5 524 180. Claim 36 is believed allowable for the reasons set forth above with respect to Claim 31.

Claims 27, 29, 40-42, 44, 47 and 48 stand rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang.

Claim 45 was indicated as containing allowable subject matter. Claim 40 has been amended to include the features of cancelled Claims 41-45. Therefore Claim 40, and Claims 46, 47 and 49 dependent therefrom, are believed allowable.

Independent Claim 27 has been amended to include the features of dependent Claim 28. Thus, the rejection of Claims 27 and 29 as being unpatentable over Sakurai in view of Dustin and Wang is believed moot.

Claim 27, including the features of Claim 28, now stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin, Wang and Yaroach. There is believed to be



no motivation to combine select features of Dustin and Wang with Sakurai for the reasons discussed above with respect to Claim 14.

Claim 27 recites an apparatus for controlling a plurality of medical devices including a housing designed to be situated on a floor surface, and a "plurality of controls including a plurality of foot pedals and a plurality of foot switches, the plurality of foot switches including a selection switch for selecting a medical device to be controlled from among the plurality of medical devices". Claim 27 further recites "a wireless transmitter within the housing" to transmit "a device selection signal to cause a remote receiver unit to select the device to be controlled" and "to transmit control signals to cause the remote receiver unit to control the selected medical device".

Sakurai discloses footswitch unit 51 having a pair of pedals A, B for controlling different surgical devices. There is no disclosure of providing a selection switch with the footswitch unit 4, 51 of Sakurai. As discussed above, Dustin does not disclose or suggest a foot switch unit, much less a foot switch unit for controlling medical devices. Further, Dustin does not transmit a device selection signal to a receiver. As discussed above, Wang discloses providing a foot switch for controlling surgical tools. Wang does not disclose that the foot switch also selects a tool to be controlled. Such device selection is done by the voice controlled interface of Wang.

Claim 27 further recites that the wireless transmitter transmits "an apparatus identifier in association with the control signals, the apparatus identifier for uniquely associating the apparatus with the receiver unit". This feature is not believed present in the prior art.

As discussed above, Yaroch is directed to an RF transmitter for controlling the audio system of an automobile and a separate RF transmitter for controlling the power locks. These teachings are not believed applicable to the claimed

system. Further the transmitters of Yaroch each control a separate device/system in all instances. The receiver 30 of Yaroch merely sends the received signal to the appropriate device. No "apparatus identifier" is provided. As discussed above, a second remote entry controller 33 would transmit signals identical to a first remote entry controller 33. Thus Yaroch does not disclose an apparatus identifier for a remote entry controller, or an audio system controller.

For the above reasons Claim 27, and Claim 29 dependent therefrom, are believed allowable.

Claim 30 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Linhares. Claim 30 is believed allowable for the reasons set forth above with respect to Claim 27.

Claim 37 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Dowling, U.S. Patent No. 7 228 190. Claim 37 is believed allowable for the reasons set forth above with respect to Claim 31.

Claim 39 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin and Wang, and further in view of Stephens. Claim 39 is believed allowable for the reasons set forth above with respect to Claim 27.

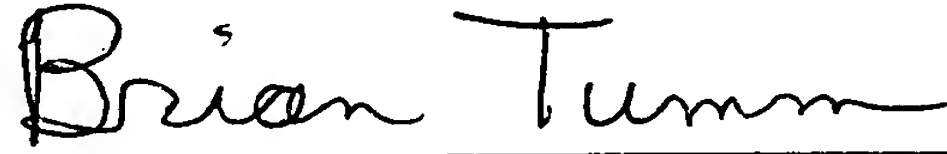
Claim 46 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin, Wang, Right and Yaroch. Claim 46 is believed allowable for the same reasons as Claim 40.

Claim 49 stands rejected under 35 USC §103 as being unpatentable over Sakurai in view of Dustin, Wang and newly cited Amou, U.S. Pat. No. 5 223 826. Claim 49 is believed allowable for the same reasons as Claim 40.

As set forth above, the amendments accept the allowance of Claim 45 and merely combine dependent claims with parent claims. Thus, no new issues are presented. Therefore consideration of the amendment is respectfully requested.

In view of the above, the instant application is believed to be in condition for allowance, and action toward that end is respectfully solicited.

Respectfully submitted,



Brian R. Tumm

BRT/ad

FLYNN, THIEL, BOUTELL  
& TANIS, P.C.  
2026 Rambling Road  
Kalamazoo, MI 49008-1631  
Phone: (269) 381-1156  
Fax: (269) 381-5465

David G. Boutell	Reg. No. 25 072
Terryence F. Chapman	Reg. No. 32 549
Mark L. Maki	Reg. No. 36 589
Liane L. Churney	Reg. No. 40 694
Brian R. Tumm	Reg. No. 36 328
Heon Jekal	Reg. No. 64 219
Eugene J. Rath III	Reg. No. 42 094
Dale H. Thiel	Reg. No. 24 323
Sidney B. Williams, Jr.	Reg. No. 24 949

Encl: Postal Card

136.07/05